

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A method for loading methods into a virtual machine, the methods contained in one or more classes, the method including:

recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond;

wherein said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code;

storing identifiers corresponding to said all said methods referenced in said application code and all said methods referenced in methods referenced in said application code ~~methods which may be called in a method usage map~~ organized by classes;

consulting said method usage map upon execution of the virtual machine; and

selectively loading only those methods contained in said method usage map into memory in the virtual machine.

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2. (Cancelled) - Please Cancel Claim 2, without prejudice.

3. (Original) The method of claim 1, wherein said storing includes storing said method usage map in a file located in secondary storage.

4. (Original) The method of claim 3, wherein each of the classes is stored in secondary storage.

5. (Original) The method of claim 1, wherein said recursively scanning includes statically determining which methods of the classes may actually be used by the application.

6. (Original) The method of claim 1, wherein said recursively scanning includes handling method polymorphism.

7. (Currently Amended) A method for generating a method usage map for use in loading methods into a virtual machine, the methods contained in one or more classes, the method including:

recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond,  
wherein said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code; and

storing identifiers corresponding to said all said methods referenced in said application code and all said methods referenced in methods referenced in said application code ~~methods which may be called~~ in a method usage map organized by classes.

8. (Cancelled) - Please Cancel Claim 8, without prejudice.

9. (Original) The method of claim 7, wherein said storing includes storing said method usage map in a file located in a database.

10. (Original) The method of claim 9, wherein each of the classes is stored in the database.

11. (Original) The method of claim 7, wherein said recursively scanning includes statically determining which methods of the classes may actually be used by the application.

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12. (Original) The method of claim 7, wherein said recursively scanning includes handling method polymorphism.

13. (Cancelled) - Please cancel Claim 13, without prejudice.

14. (Cancelled) - Please cancel Claim 14, without prejudice.

15. (Cancelled) - Please cancel Claim 15, without prejudice.

16. (Cancelled) - Please cancel Claim 16, without prejudice.

17. (Currently Amended) An apparatus for loading methods into a virtual machine, the methods contained in one or more classes, the apparatus including:

means for recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond;

wherein said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code;

means for storing identifiers corresponding to  
said all said methods referenced in said application code  
and all said methods referenced in methods referenced in said  
application code methods which may be called in a method usage  
map organized by classes;

means for consulting said method usage map upon  
execution of the virtual machine; and

means for selectively loading only those methods  
contained in said method usage map into memory in the virtual  
machine.

18. (Cancelled) - Please Cancel Claim 18, without  
prejudice

19. (Original) The apparatus of claim 17, wherein said  
means for storing includes means for storing said method usage  
map in a file.

20. (Original) The apparatus of claim 19, wherein each of  
the classes is stored in a secondary storage.

21. (Original) The apparatus of claim 17, wherein said  
means for recursively scanning includes means for statically

determining which methods of the classes may actually be used by the application.

22. (Original) The apparatus of claim 17, wherein said means for recursively scanning includes means for handling method polymorphism.

23. (Currently Amended) An apparatus for generating a method usage map for use in loading methods into a virtual machine, the methods contained in one or more classes, the apparatus including:

means for recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond  
wherein, said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code;

and

means for storing identifiers corresponding to said all said methods referenced in said application code and all said methods referenced in methods referenced in said application code ~~methods which may be called in a method usage map organized by classes.~~

24. (Cancelled) - Please cancel Claim 24, without prejudice.

25. (Original) The apparatus of claim 23, wherein said means for storing includes means for storing said method usage map in a file located in a database.

26. (Original) The apparatus of claim 25, wherein each of the classes is stored in the database.

27. (Original) The apparatus of claim 23, wherein said means for recursively scanning includes means for statically determining which methods of the classes may actually be used by the application.

28. (Original) The apparatus of claim 23, wherein said means for recursively scanning includes handling method polymorphism.

29. (Cancelled) - Please cancel Claim 29, without prejudice.

30. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of

instructions executable by the machine to perform a method for loading methods into a virtual machine, the methods contained in one or more classes, the method including:

recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond  
wherein' said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code;

storing identifiers corresponding to said all said methods referenced in said application code and all said methods referenced in methods referenced in said application code ~~methods which may be called in a method usage map organized by classes;~~

consulting said method usage map upon execution of the virtual machine; and

selectively loading only those methods contained in said method usage map into memory in the virtual machine.

31. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method generating a method usage map for use in loading methods into a

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virtual machine, the methods contained in one or more classes, the method including:

recursively scanning through application code beginning at an application entrypoint to determine which methods may be called and the classes to which they correspond  
wherein, said recursively scanning includes:

finding all methods referenced in said application code; and

finding all methods referenced in methods referenced in said application code;

and

storing identifiers corresponding to said all said methods referenced in said application code and all said methods referenced in methods referenced in said application code ~~methods which may be called~~ in a method usage map organized by classes.

32. (Cancelled) - Please Cancel Claim 32, without prejudice.